



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,456	12/06/2000	Lujing Cai	60705-1510	1214

7590 08/03/2004

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.
Suite 1750
100 Galleria Parkway
Atlanta, GA 30339

EXAMINER

KIM, KEVIN

ART UNIT	PAPER NUMBER
----------	--------------

2634

DATE MAILED: 08/03/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,456

Applicant(s)

CAI ET AL.

Examiner

Kevin Y Kim

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-7 and 14, 17-22 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8-13, 15, 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1,2,8-13,15,16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1,8,12 have been amended to include a limitation "to selectively configure at least one system parameter in response to measured system conditions." But there is no support for this in the originally filed written description. Dependent claims from claims 1,8 and 12 are rejected for the same reason.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1,2,8-13,15,16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1,8 and 12 each recite "at least one system parameter" twice, one in response to an identification of a second modem manufacturer and the other in response to measured system conditions. The claim further recites "the at least one system parameter" in connection with a

Art Unit: 2634

memory device. It is not clear which of the two instances of "at least one system parameter" is referred to by "the at least one system parameter." For the examination purposes, "the at least one system parameter" is considered to refer back to the first "at least one system parameter," as was originally claimed. Dependent claims from claims 1,8 and 12 are rejected for the same reason.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1,2,8-13,15,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole (US 6,535,550 previously cited) in view of Terry (US 6,339,613).

Consider claim 1. Cole discloses a DSL modem that communicates a configuration message signal, including vendor identification information, to a corresponding DSL modem. Col.5, lines 53-56. It is inferred from this teaching that the digital signal processor and memory

Art Unit: 2634

of the corresponding DSL modem will “selectively configure at least one system parameter” or “appropriately apply at least one operational algorithm” in response to the received vendor identification information because the vendor identification is part of a configuration message signal. Further, this teaching compels that the memory stores the system parameter in order to configure the modem according to the parameter during the training period. Furthermore, this configuration message is communicated during a training period, its purpose is “to optimize data communications” between the two modems. Cole fails to teach “to selectively configure at least one system parameter in response to measured system conditions.” Terry teaches an ADSM modem, col.5, lines 18-27, that performs a spectral analysis of a received signal, i.e., “measure[s] system conditions,” and, in response, adjust the PSD of its transmitted signals to avoid crosstalk, col.6, lines 22-48, i.e., “selectively configure[s] at least one system parameter.” Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the ADSL of Cole such that it selectively configure at least one system parameter in response to measured system conditions, as taught by Terry, for the purpose of reducing crosstalk between two communicating modems.

Regarding claim 2, a pre-configured “operational algorithm” is required to the operation of a modem communication such as initialization, handshaking, error correction, etc. Such an algorithm is stored in a memory in the form of programmed instructions.

Regarding claims 8 and 10, as explained above, the corresponding modem, i.e., a modem at a remote end, reads on “a first modem configured to appropriately apply at least one system parameter” or “pre-configured with a set of system parameters” because it responds to a configuration message signal, including vendor identification information, received from the

Art Unit: 2634

transmitting DSL modem. See Cole, col.5, lines 53-56. The limitation "appropriately apply at least one system parameter in response to measured system conditions" has been addressed above in connection with claim 1 reciting the same limitation. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the ADSL of Cole such that it selectively configures at least one system parameter in response to measured system conditions, as taught by Terry, for the purpose of reducing crosstalk between two communicating modems.

With respect to "a two-wire pair telephone line," note that DSL modems have been developed to be connected to a POTS line to utilize an unused band over a voice channel of 3KHz. Regarding claims 9 and 11, because the modem would react differently in response to a received vendor information, it will apply "at least one operational algorithm" specific to the manufacturer information of the transmitting modem.

Consider claim 12. The fact that a DSL modem that communicates a configuration message signal, including vendor identification information, to a corresponding DSL modem indicates that the corresponding modem comprises "a means for applying a default variable identifying the manufacturer of a communicatively coupled remote DSL modem." See Cole, col.5, lines 53-56. Also it follows that the corresponding modem has a means for "selectively applying at least one system parameter" in response to the received manufacturer information. The limitation "means for selectively applying at least one system parameter in response to measured system conditions" has been addressed above in connection with claim 1 reciting the same limitation. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the ADSL of Cole such that it selectively configures at least one

Art Unit: 2634

system parameter in response to measured system conditions, as taught by Terry, for the purpose of reducing crosstalk between two communicating modems. Regarding claim 13, because the modem would react differently in response to a received vender information, it will apply "at least one operational algorithm" specific to the manufacturer information of the transmitting modem. Regarding claim 15, it can be inferred that a configuration corresponding to a configuration message is stored in the memory of the receiving DSL modem. Regarding claim 16, that the receiving modem receives a vender information of a transmitting modem indicates that it will respond differently vender information. Otherwise, the transmission of the vender information would be meaningless. Storing different vender information in the form of a table in a memory is needed in order to distinguish between a plurality of venders.

Allowable Subject Matter

7. Claims 3-7, 14, 17-22 are allowed.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2634


however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 703-305-4082. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kvk


CHIEH M. FAN
PRIMARY EXAMINER